

# *Proceedings of The International Congress of Siraf Port*

*November 14-16, 2005*

*Bushehr-Iran*

**Congress President : Esmael Tabadar**

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## History of Archaeological Surveys in Sirāf Port

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### Abstract

*The ruined site at Tahiri was first recognized as being the remains of the ancient town and port of Siraf by Captain Kempthorne of the Indian Navy in 1835.*

*The area immediately to the west of Tahiri village, now referred to as the 'western area', was surveyed and described by the archaeologist and explorer Sir Aurel Stein in 1937, at which time the, now demolished, sea wall survived to a length of over four hundred metres. Stein indicated on his small scale sketch plan areas where ruins of buildings, cisterns, wells, and rock-cut graves survived at that time.*

*The same time area west of the modern village was the subject of a more detailed survey at a scale of 1:500 for the British Institute of Persian Studies during the 1960s and is shortly to be published. This revealed extensive evidence for masonry structures and associated cemeteries over an area in excess of two hundred hectares, much of which is located on the rocky slopes which form the northern part of the site. This represents a wide period of occupation and particularly the surface evidence for the later periods. However, excavations on the lower slopes to the sea, for example at the Great Mosque (Site B), have indicated evidence greater depths of deposit which contain for earlier occupation, in this case remains of a Sasanian period fort.*

*It is understood that since the 1960s the site has suffered from coastal erosion by the sea and the effects of the earthquake which badly damaged the ancient city of Bam in December*

2003. It is also believed that some new development has also taken place on the remains of Siraf at Tahiri.

In his lecture to the International Siraf Conference, Fred Aldsworth, who undertook the survey of the site in 1968-69, will not only describe the previous archaeological surveys but will also provide an account of the findings, which include evidence for defenses; water capture, management and storage; an enclosed harbor; quarries; rock-cut cemeteries; elements of the town plan, such as industrial and residential zones; and a wide range of building plans.

It is intended that copies of the site plans prepared by the British Institute of Persian Studies will be available for the site visit to Siraf during the congress and can be used in discussions concerning the future protection of the historical remains in relation to the expanding activities of the South Pars Oil and Gas field.

The existence of ruins at Tāherī was reported in 1812 and they were first identified as being the remains of the ancient port called Sīrāf in 1835.

The first survey and description of the site was prepared one hundred years later by Sir Aurel Stein. Stein was born in Budapest, Hungary, in 1862. He became an archaeologist and explorer and spent much of his life in India. He is particularly well known for his numerous expeditions to investigate the ancient Silk Road through central Asia and the coastal routes associated with it. His first expedition was in 1900 and this was followed by others in 1906, 1913, and 1930. As well as making careful notes of his travels he took many photographs, surveyed



many sites, and published the results. He died in Kabul, Afghanistan, in 1943.

It was during the last of his expeditions that Stein passed through Tāherī in 1933. He must have spent some considerable time on the site and in 1938 he published the results of his visit, which included not only a description but also some photographs and a detailed sketch map.

On his plan, Stein noted extensive areas where ruins of houses existed in cultivated areas and he also identified the positions of cistern or water tanks, wells and areas of rock-cut graves.

Between 1966 and 1973 the British School of Persian Studies undertook a large program of survey and excavation, under the direction of Dr. David Whitehouse. Whilst the survey work was concentrated in the area previously mapped by Sir Aurel Stein, it also continued to the east and west. The area to the west of the village of Tāherī was drawn at a scale of 1:500 to beyond the Kunārak river, where evidence for a town wall was found, with some evidence for settlement beyond it. Work to the east of the village identified traces of settlement as far as Rūd-khāne kuchek where another town wall was found. The distance between the two town walls is about 3500metres.

Although there were some remains surviving as standing buildings or as structures exposed by coastal erosion, we first noted that there were a few walls exposed on the surface of the cultivated fields and beyond them on the rocky slopes. As we began to survey these walls onto our plans we began to see whole courtyard buildings being revealed and eventually this work led to the identification of complete blocks of buildings, often with narrow passages and streets between them.

Each plan we produced covered an area of three hundred metres by two hundred metres, each 100metres square being one hectare of land. As we began to put the plans together an overall plan of large parts of the town began to emerge.

In addition to small houses, we surveyed some larger buildings, stone quarries, aqueducts, cisterns, wells, cemeteries and the town wall, with fortifications and a gate.

With the evidence of the survey and the excavations we can now say quite a lot about the town plan of Sīrāf.

Sīrāf is located on a narrow coastal plain on the southern edge of the southern Zagros mountains, which comprise a series of ridges running parallel to the coast. The last of these is the

Bakhtiārī escarpment of sandstone and conglomerate and this forms the steeply-sloping northern part of the site. Beyond it to the north is a lower area known as the Dōband valley, from which a number of seasonal watercourses issue. The ridge of higher land actually reaches the coast at the village of Tāherī and it is here that a fort was built in about 1920. To either side the flatter land of the coastal plain varies in width from nothing to about one thousand metres. At each end of the site seasonal rivers, known as the Kunārak and the Rūd-khāne kuchek have cut through the ridge and have deposited soil in the form of two projecting pieces of land on either side of a bay. A smaller watercourse, the Shīlāu, has also cut a narrow gorge through the ridge at Tang-i-Līr and has made a small valley which divides this part of the site into two and has created a smaller projecting piece of land.

The ruins of Sīrāf survive clearly on the surface of the higher ground and close to the surface, and partly obscured by cultivation, on the lower ground.

What can we say about the town plan?

### **The Stone Quarries**

Many of the buildings of Sīrāf were built from sandstone quarried on the slopes of the northern part of the site. When the

stone was being cut a number of features were created, such as stone columns, water catchments system, steps and wells. Several of the quarries were later used as cemeteries.

### **The Defences**

When Sir Aurel Stein visited the site he noted the 'Total absence of indications that the town was protected by defences anywhere on the land side'. However, he did record the remains of what he called a quay wall surviving to about 5metres high and about 450metres long which he photographed and included on his plan. Only a small fragment of this survived in the 1960s.

The town would have been protected on the north side by the natural steep slopes of the Dōband valley.

Excavations on the site of the Great Mosque have now identified the remains of a Sasanian-period fort.

As I mentioned earlier, our surveys have also revealed evidence for walls across the coastal plain which formed defences enclosing a town extending over a distance of 3.5kilometres along the coast. The west wall has now been traced for a distance of 1.5metres. It begins on the west point, where it is associated with a large building, currently interpreted as a warehouse. The wall includes both round and pointed towers on



the outside face and the remains of a gate have also been found. Towards the north end a small fort may have protected a gate providing access into the town from the Kunārak and Dōband valleys.

So the town was protected on all sides by natural slopes and man-made defences but, as yet, we do not know whether they were all used at the same time.

### **Water Supply And Management**

We have identified at least nine aqueducts entering the town. They are usually about 35centimetres wide and are either cut in the rock or built as a channel lined with plaster or *sārūj*.

The longest aqueduct brought water from a dam and pond in the Kunārak valley, over a distance of 5kilometres to the town. At one point it crosses the valley and can be traced alongside the inside of the west wall of the town. It had been diverted into houses at several points and may have eventually led to the bathhouse near the warehouse.

At Tang-i-Līr, Stein had photographed the pair of round stone towers on either side of the narrowest part of the gorge and this is where the aqueduct was carried across the opening.



Water was also collected in wells some of which, like those in the stone quarries, were designed to catch water running down the bottom of the quarry.

Water was also stored in stone-built cisterns, usually rectangular or oval in plan, either on their own or in groups. Each had an arched roof over the top. Many of these appear to have been associated with individual houses.

### **Cemeteries**

There are extensive remains of rock-cut cemeteries on the rock slopes which form the north part of the site. The largest are on the floors of the abandoned quarries, where they are served by stone steps. The graves have grooves to support stone slabs over the body. There are also several standing pillars of unquarried stone.

As well as rock-cut graves there are a number of burial chambers cut in vertical rock faces. They seem to have been for collective burial and were sealed with plaster.

There are also a number of stone covers still in position and others have been found scattered about the site.



On a piece of high ground overlooking the west end of the city, the survey identified a group of square buildings which have been found to be monumental tombs for the collective disposal of the dead. Ten have been excavated and found to contain between six and fifty-two skeletons.

### **Industrial Zone**

There was an extensive pottery works at the south-west corner of the city and this was first exposed by coastal erosion. Excavations have identified several workshops and thirty kilns.

### **The City Plan**

The survey and excavations have indicated that the evidence is in two parts.

On the higher ground to the north and north-east, mostly over ten metres above sea level, many walls survive on the surface of the rocky slopes. On the lower ground of the coastal plain many of the buildings are below the present surface and are covered by soil which is cultivated but here excavations have shown that building remains survive in places down to depths of about seven metres. For this reason we know much more about the layout of the buildings and the city on the higher ground than on the lower ground. It seems likely that the pattern of closely-

packed buildings and narrow streets we see on the higher ground would be repeated on the lower ground, although the walls survive to a much greater height where they have been buried for a long time.

On the higher ground a large number of house plans are visible. Using evidence of surviving street surfaces and spaces between the buildings, it is not difficult to reconstruct the original plan of streets and narrow alleyways between them (Figure 6).

Survey and excavations have indicated a very wide range of building types. In addition to public buildings, such as the Great Mosque, some small buildings near the sea have been interpreted as a bazaar.

All the houses appear to have been of the courtyard type and vary greatly in size and complexity (Figure 7). The smallest seem to have comprised only a few rooms on one side of a yard whilst the larger ones, perhaps owned by wealthy merchants, have ranges of rooms on two, three or all four sides of a central courtyard. There appear also to have been a few larger properties, with several buildings grouped around a large central area, and the largest of these has been interpreted as a palatial



residence, perhaps the house of a leading merchant or an official of the city.

To summarise, the remains of the port and city of Sīrāf cover an area of over 200 hectares. On the rocky slopes the buildings and other remains can be seen on the surface, but nearer the sea there are remains buried up to seven metres deep. The site is an important port-city of Islamic civilisation of the 4<sup>th</sup> and 5<sup>th</sup> centuries AH. It needs to be protected in relation to the expanding activities of the South Pars Oil and Gas Field and a number of questions may be asked by the Congress –

Should the site be adapted for visitors?

How should the buildings be conserved for display?

How can the site be protected from damage?

Should there be a restriction on where new buildings are allowed to be built?

Should there be a control over the depth of excavation for foundations of new buildings?

Should new buildings be limited to one storey in height?

Should more archaeological excavations be undertaken?

Is more survey needed?

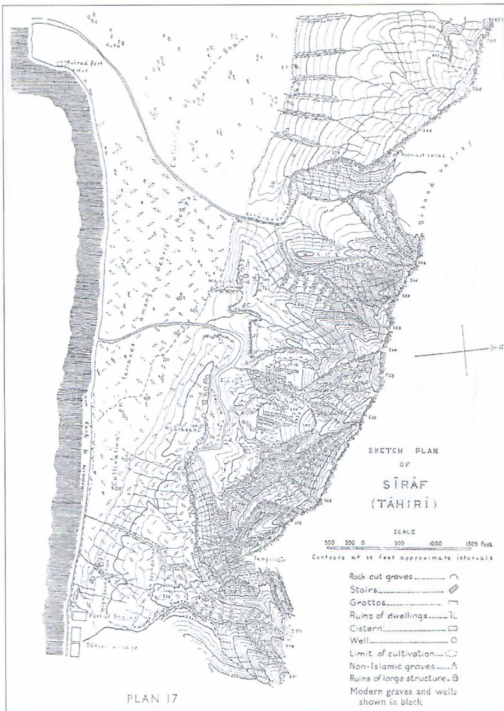


Figure 1 : Sir Aurel Stein's map of Sīrāf  
(Reproduced by kind permission Macmillan & Co Ltd and  
the British Institute of Persian Studies)

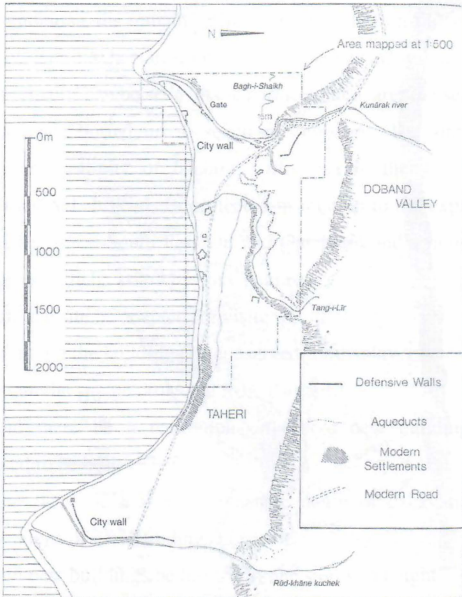


Figure 2 : General location map of the site  
(Reproduced by kind permission of the British Institute of Persian Studies).



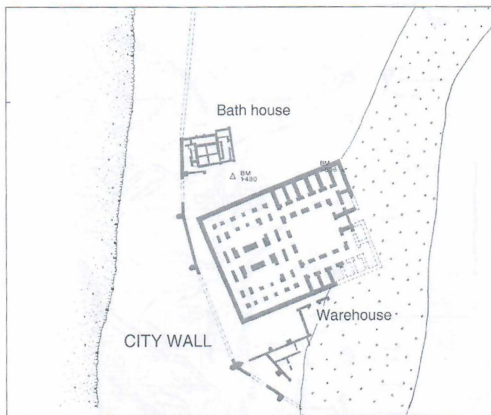


Figure 4 : The south end of the west wall  
(Reproduced by kind permission of the British Institute of Persian Studies).



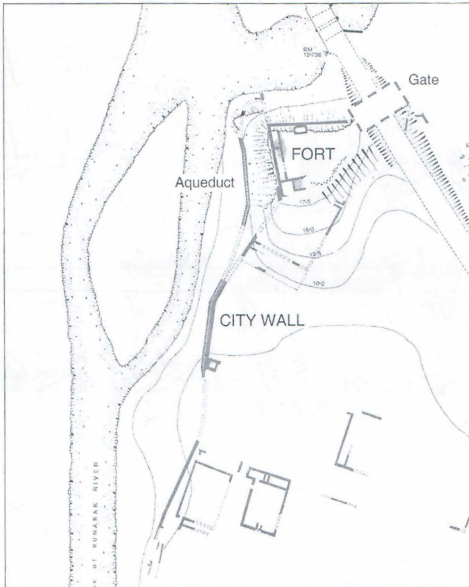
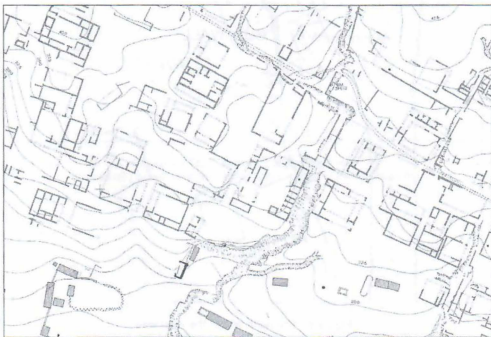


Figure 5 : The north end of the west wall  
(Reproduced by kind permission of the British Institute of Persian Studies).



Figures 6 and 7 : Some of the houses and streets of Sīrāf.  
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Plate 1 : Sir Aurel Stein's photograph of the quay wall  
(Reproduced by kind permission of Macmillan & Co Ltd)



Plate 2 : Sir Aurel Stein's photograph of the aqueduct at Tang-i-Lir.  
(Reproduced by kind permission of Macmillan & Co Ltd)



Plate 3 : Sir Aurel Stein's photograph of the main cemetery.  
(Reproduced by kind permission of Macmillan & Co Ltd)